

REVENDICATIONS

1. An evaporation chamber of materials including a vacuum chamber (10), a first pumping unit (13) to pump said chamber and sources of material, characterised in that:
 - 5 - a wall (23) liable to provide total or partial vacuum tightness, delineates within the vacuum chamber (10) a first volume (25) pumped by said first pumping unit (13) and a second volume (22) pumped by a second pumping unit (24),
 - certain of said sources of material (17) having a main axis (18) are placed in the second volume (22) and other sources (21) are placed in the first volume (25),
 - said wall (23) includes des recesses (26), each recess (26) being centred on the main axis (18) of one of the sources of material (17) having a main axis (18),
 - 10 and in that,
 - the chamber contains means (27) for plugging or clearing each of said recesses (26), said means (27) being controlled individually to protect the sources of material (17) having a main evaporation axis (18) unused.
 - 15 2. An evaporation chamber according to claim 1, characterised in that the means (27) for plugging or clearing said recesses (26) include masks.
 - 20 3. An evaporation chamber according to claim 1 or 2, characterised in that when growing, the flow rate, through the recesses (26) cleared, of the elements forming the materials from the first volume (25) is pumped by the second pumping unit (24).
 - 25 4. An evaporation chamber according to any of the claims 1 to 3, characterised in that the wall (23) liable to provide total or partial vacuum tightness contains a plate.
 - 30 5. An evaporation chamber according to any of the claims 1 to 4, characterised in that the first pumping unit (13) contains a primary pump and a secondary pump.
 - 35 6. An evaporation chamber according to any of the claims 1 to 5, characterised in that the second pumping unit (24) contains a secondary pump.

7. An evaporation chamber according to claims 5 and 6, characterised in that the first volume (25) and the second volume (22) include at least one liquid nitrogen storage panel (16, 28).

8. An evaporation chamber according to any of the claims 1 to 7, 5 characterised in that the second volume (22) delineated by the wall (23) has a pressure lower than 10^{-7} Torr.

9. An evaporation chamber according to any of the claims 1 to 8, characterised in that the evaporation chamber contains means (16) for controlling the pressure in order to measure independently the pressure 10 in the first volume (25) and the second volume (22).

10. An evaporation chamber according to any of the claims 1 to 9, characterised in that the sources of material (17) having a main axis (18) placed in the second volume (22) include crucible cells heated by Joule effect.

15 11. An evaporation chamber according to any of the claims 1 to 10, characterised in that the sources of material (17) having a main axis (18) placed in the second volume (22) include electronic bombarding evaporation guns (20).

12. An evaporation chamber according to any of the claims 1 to 20 11, characterised in that the sources (21) placed in the first volume (25) include at least one source de plasma.

13. An evaporation chamber according to any of the claims 1 to 12, characterised in that the sources (21) placed in the first volume (25) include at least one gas injector.